7、 MAINTENANCE
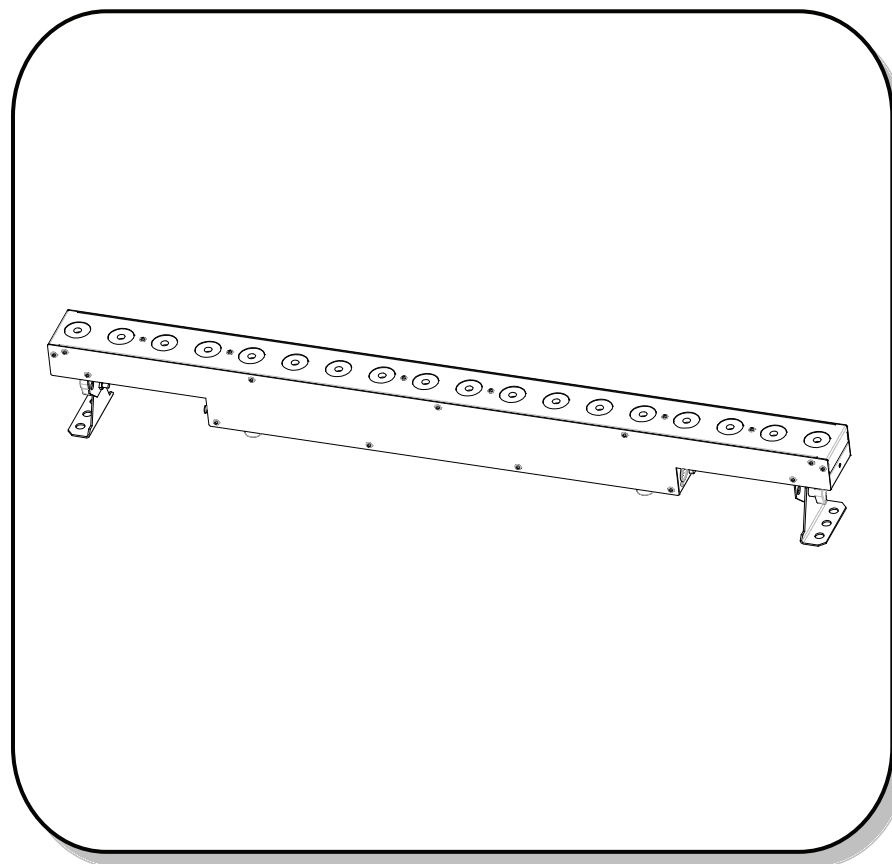
To prolong the life of lighting, it is very important to do the maintenance work. The environment is hash outdoors, or if the lighting is idle for a long time, damp, dust can cause greater accumulation of dirt on its cover or housing. So it should be cleaned to maintain an optimum light output and at the same time to prevent it from corrupted by dust and acid gas. Cleaning frequency depends on the lighting operation frequency and the environment in which the fixture operates. Soft cloth and typical glass cleaning products should be used for cleaning. It is recommended to clean projector at least once every 20 days.
Do not use any organic solvent,e.g.alcohol, to clean housing of the apparatus.

8、 TROUBLESHOOTING

.

PROBLEM	REASON AND ACTION
The lighting can't be started normally	● Check the power connection is correct or not. ● Please detect the voltage. ● Power supply is damaged or incorrect connected. Call a qualified personnel to fix it. ● Connection of control board is not correct. Call a qualified personnel to fix it.
Out of console's control	● Please check the DMX connector and the power connection is connected correctly or not. It means having signal if it shows twinkling of the decimal point which in the lower right corner of the screen when exiting the screen saver. ● Please check the DMX address setting of lighting is correct or not. ● Check【CHMD】setting is correct or not. ● Please check whether the DMX line is near to the high voltage wire or not. In that case, it will damage or interfere the DMX electric circuit.
The beam appears dim ,the brightness declines obviously	● Check whether the 【CAL】is started or not and the set value is too small. ● Check whether the【POW】is in over temperature protection situation or not, if yes, please take measures for ventilation.

Color Bar 18Q

USER MANUAL
Please read it carefully

INDEX

ACCESSORIES

These items are packed together with the Lighting，please check：

Name	Quantity	Unit	Remark
This manual	1	Pc	
Power cable	1	Pc	

			CH8	CH16	101–105	AUTO 10	Remark:
					106–110	AUTO 11	AT01:R, G, B, RG, RB, GB
					111–115	AUTO 12	AT02:R↑,R↓,G↑,G↓,B↑,B↓,W↑,W↓
					116–120	AUTO 13	AT03:R↑G↑,R↓G↓,R↑B↑,R↓B↓,B↑G↑,B↓G↓
					121–125	AUTO 14	AT04:R↑G↑B↑W↑,R↓G↓B↓W↓
					126–130	AUTO 15	AT05:(Rainbow effect)B,BG↑,BG,B↓G,G,GR↑,GR,G↓ R, R, RB↑, RB, R↓B
					131–135	AUTO 16	AT06:R1→R2→R3→R4
					136–140	AUTO 17	AT07:G1→G2→G3→G4
					141–145	AUTO 18	AT08:B1→B2→B3→B4 AT09:W1→W2→W3→W4
					146–150	AUTO 19	AT10:R1G1→R2G2→R3G3→R4G4
					151–155	AUTO 20	AT11:R1B1→R2B2→R3B3→R4B4
					156–160	AUTO 21	AT12:G1B1→G2B2→G3B3→G4B4 AT13:G2R1→G4R3
					161–165	AUTO 22	AT14:R2B2R1G1→R4B4R3G3
					166–170	AUTO 23	AT15:B2W1→B4W3
					171–175	AUTO 24	AT16:R1G2B3→R2G3B4→R3G4B1→R4G1B2 AT17:R1G2G3G4→G1R2G3G4→G1G2R3G4→G1G2G3R4
					176–180	AUTO 25	AT18:G1B2B3B4→B1G2B3B4→B1B2G3B4→B1B2B3G4
					181–185	AUTO 26	AT19:B1R2R3R4→R1B2R3R4→R1R2B3R4→R1R2R3B4
					186–190	AUTO 27	AT20:R1←R2←R3←R4 AT21:G1←G2←G3←G4
					191–195	AUTO 28	AT22:B1←B2←B3←B4
					196–200	AUTO 29	AT23:W1←W2←W3←W4 AT24:R1G1←R2G2←R3G3←R4G4
					201–205	AUTO 30	AT25:R1B1←R2B2←R3B3←R4B4
CH2	–	–	CH9	CH17	206–210	AUTO 31	AT26:G1B1←G2B2←G3B3←G4B4 AT27:G2R1←G4R3
					211–215	AUTO 32	AT28:R2B2R1G1←R4B4R3G3
					216–220	AUTO 33	AT29:B2W1←B4W3 AT30:R1G2B3←R2G3B4←R3G4B1←R4G1B2
					221–225	CHASE1	AT31:R1G2G3G4←G1R2G3G4←G1G2R3G4←G1G2G3R4
					226–230	CHASE2	AT32:G1B2B3B4←B1G2B3B4←B1B2G3B4←B1B2B3G4
					231–235	CHASE3	AT33:B1R2R3R4←R1B2R3R4←R1R2B3R4←R1R2R3B4
					236–240	SOUND 1:Sound change color	
					241–245	SOUND 2:Sound Strobe(10CH:CH1-CH5,18CH:CH1-CH13 as color)	
					246–255	Reserved	
	–	–	CH8	CH16	0—255	Auto speed,fast->slow,(AT01-AT05:0-255S, AT06-AT33:0-25.5S)	
						Virtual colour wheel	
					0–10	No effect	
					11	Blue (Blue=full, Red+Green+White=0)(step)	
					12–50	Red=0, Green->up,Blue =full, White=0(proportional)	
					51	Light Blue (Red=0, Green=full, Blue =full, White=0)(step)	
					52–90	Red=0, Green=full, Blue->down, White=0(proportional)	
					91	Green (Red=0, Green=full, Blue =0, White=0)(step)	
	–	–	CH9	CH17	92–130	Red->up, Green=full, Blue=0, White=0(proportional)	
					131	Yellow (Red=full, Green=full, Blue=0, White=0)(step)	
					132–170	Red=full, Green->down, Blue=0, White=0(proportional)	
					171	Red(Red=full, Green=0, Blue=0, White=0)(step)	
					172–210	Red=full, Green=0, Blue->up, White=0(proportional)	
					211	Magenta (Red=full, Green=0, Blue=full, White=0)(step)	
					212–250	Red -> down, Green=0, Blue=full, White=0(proportional)	
					251–255	Blue (Red=0, Green=0, Blue=full, White=0)(step)	
					0–10	Use menu setting dimmer mode	
					11–20	Dimmer off	
					21–30	Dimmer 1	
–	–	CH7	CH10	CH18	31–40	Dimmer 2	
					41–50	Dimmer 3	
					51–60	Dimmer 4	
					61–254	Use menu setting dimmer mode	
					255	Reset (at least 5S)	

6、DMX PROTOCOL

2CH	5CH	7CH	10CH	18CH	Value	Function
–	CH1	CH1	CH1	CH1	0-255	Dim all
–	CH2	CH2	CH2	–	0-255	Red
–	CH3	CH3	CH3	–	0-255	Green
–	CH4	CH4	CH4	–	0-255	Blue
–	CH5	CH5	CH5	–	0-255	White
–	–	–	–	CH2	0-255	Red 1
–	–	–	–	CH3	0-255	Green 1
–	–	–	–	CH4	0-255	Blue 1
–	–	–	–	CH5	0-255	White 1
–	–	–	–	CH6	0-255	Red 2
–	–	–	–	CH7	0-255	Green 2
–	–	–	–	CH8	0-255	Blue 2
–	–	–	–	CH9	0-255	White 2
–	–	–	–	CH10	0-255	Red 3
–	–	–	–	CH11	0-255	Green 3
–	–	–	–	CH12	0-255	Blue 3
–	–	–	–	CH13	0-255	White 3
CH1	–	CH6	CH6	CH14	0-10	No strobe
					11-90	Strobe, slow->fast
					91-170	Random Strobe, slow->fast
					171-255	Electronic Squarewave, slow->fast
–	–	–	CH7 (CH7 Prior to CH9)	CH15 (CH15 Prior to CH17)	0-5	No effect
					6-10	WHITE 1:3200K
					11-15	WHITE 2:3400K
					16-20	WHITE 3:4200K
					21-25	WHITE 4:4900K
					26-30	WHITE 5:5600K
					31-35	WHITE 6:5900K
					36-40	WHITE 7:6500K
					41-45	WHITE 8:7200K
					46-50	WHITE 9:8000K
					51-55	WHITE 10:8500K
					56-60	AUTO 1
					61-65	AUTO 2
					66-70	AUTO 3
					71-75	AUTO 4
					76-80	AUTO 5
					81-85	AUTO 6
					86-90	AUTO 7
					91-95	AUTO 8
					96-100	AUTO 9

1、SAFETY GUIDELINE

● Please keep this manual for further inquire reference. Please make sure they also have this user manual if you sell this Lighting to other users. Each unit is packed properly by the manufacturer. Please operate this Lighting according to the user manual. Any damage caused by improper use will not be assumed by the manufacturer.

● When receiving the lighting，please dispose the carton, check and inspect there is any damage or not. Should there be any damage caused by transportation，do not use the lighting and consult your dealer or the manufacturer.

● This lighting be used indoors ,IP20.

● The lighting is only intended for installation and operation by qualified personnel.

● Do not mount the lighting directly onto inflammable surface.

● Ensure power supply voltage correspond to device requirements before running.

● It is essential that each lighting is correctly earthed and that electrical installation conforms to all relevant standards.

● When the lighting is hanged to a high place, please use a safety cord provided to pass through the lighting handles as a secondary safety fixing for safety seasons. For details, refer to "LIGHTING INSTALLATION" section.

● Avoid direct exposure to the light from the lamp（specially for people with epilepsy）. The light is harmful to eyes.

● Do not project the beam onto inflammable surfaces. The minimum distance between the lighting and irradiated object should be 2 m.

● Exterior surface temperature of the lighting will be 65℃ when working，please do not touch it with bare hands .

● To prevent electric shocking, please do not touch the power cord when the lighting is running.

● Never let the power cord mix with other cables.

● The LED lens should be changed if deeply scratched or cracked.

● There is no user serviceable parts inside the lighting. Before using the device, please check whether the covers or housing are well installed or not, and whether the screws are installed firmly or not. Do not open the housing and never operate the lighting with the covers removed.

● Always disconnect a lighting from the power supply when the device is not in use or before cleaning it or before attempting any maintenance work!

● Electrical connection must only be carried out by qualified personnel.

● Please use the original packing material for second transportation.

● If you have any questions or suggestions, please do not hesitate to consult your dealer or our factory.

2、 TECHNICAL PARAMETER

Input Voltage： AC100V-AC240V， 50/60HZ；

Power Consumption： 180W ;

Lamp Specifications：**18** pcs four in one（RGBW) high-efficiency 10W LED, rated life 50000 hours；

Lens Angle：25°（Optional：45°）;

Spot Angle：40°；

Color：RGBW linear color mixing；

Color Temperature：color cast calibration setting、color temperature output inside device；

Dimmer：0-100% linearly dimming， 5 types dimmer modes，smooth dimming, flicker-free；

Shutter：independent electronic strobe；

Control Mode：

Standard DMX512，3 pin interfaces；

4 channel modes；

Master/slave mode，no need to set up the master and slave manually, will receive the main engine data automatically;

33 auto-running modes，rainbow channel and rainbow effect；

Other Functions：

Self-programming function, 3 chases，each chase has 20 scenes，fade function；

 Lighting setting data、self-programming data can be downloaded each other；
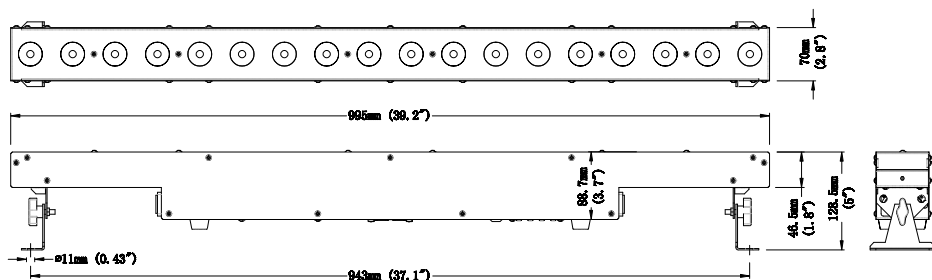
Temperature Control Protection：Both of lamp holder and base have temperature control protection;Dynamic fan speed modulation versus temperature.

Waterproof Grade：IP20；

Work Environment Temperature：-20°C～40°C；

Net Weight：**5.0** Kg；

DIMENSION

70mm (2.8")
995mm (39.2")
88.7mm (3.5")
128.5mm (5")
46.6mm (1.8")
Ø11mm (0.43")
943mm (37.1")

2)Press the【UP/DOWN】button to select【AT01】…【AT33】，【SPEED】，【CHASE01】…【SOUND2】

3)Press the【ENTER】button to start running.

5.10 EDIT AUTO-PROGRAMMING PROGRAM

1) Press the【ENTER】button in【PROGRAM】menu, then enter to the editing auto-programming program.

2) Press the【UP/DOWN】button to select【CHASE01】⋯【CHASE03】

3) Press the【ENTER】button for confirmation and enter to the next menu.
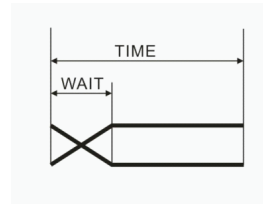
4) Press the【UP/DOWN】button to select【SCENE01】⋯【SCENE20】

5) Press the【ENTER】button for confirmation and enter to the next menu.

6) Then press the【UP/DOWN】button to select【RED1】,【GREEN1 】⋯⋯【WHITE3】,【SHUT】,【TIME】,【WAIT】,【USE】

7) Press the【UP/DOWN】button to set up the parameter which are needed.

8) Press the【ENTER】button to escape and save.

Illustrations：When【USE】 is set to be【NO】， or the parameter of 【TIME】 is 0, it will not run this scene. When 【WAIT】 is set to be FADE time, the running process isas the right chart showing.

TIME
WAIT

5.11 CHECK THE LIGHTING INFORMATION

1) Press the【ENTER】button in【INFO】menu, then enter to the checking the lighting information.

2) 【SOFT】 button is for software version information.

3) 【LEDs】 button is for the LED quantity information.

4) 【POW】 button is for the current information of power reduction. It is 100% output in normal conditions, but 80% or 50% output in over temperature protection situation.

5.12 LIGHTING SETTING PARAMETER RESET

1) Press the【ENTER】button in【ST L】menu, then enter to the lighting setting parameter reset.

2) Press the【UP/DOWN】button to select【YES】.

3) Press the【ENTER】button to escape and save.

5.13 【PROG】AUTO-PROGRAMMING PARAMETER RESET

1) Press the【ENTER】button in【PR L】menu, then enter to the【PROG】auto-programming parameter reset.

2) Press the【UP/DOWN】button to select【YES】.

3) Press the【ENTER】button to escape and save.

5.14 LIGHTING RESET

1) Press the【ENTER】button in【REST】menu, then enter to the lighting reset.

2) Press the【UP/DOWN】button to select【YES】.

3) Press the【ENTER】button for confirmation of lighting reset.
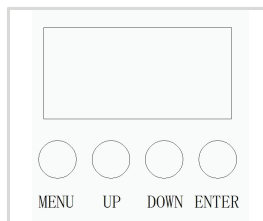
5.15 LIGHTING PARAMETER DOWNLOADING EACH OTHER

1) Press the【ENTER】button in【SEND】menu, then enter to sending parameter to other lightings.

2) Press the【UP/DOWN】button to select【YES】.

3) Press the【ENTER】button to confirm sending.

5.1 BUTTON OPERATION

1) MENU：To return to the previous menu.
2) ENTER：Enter to the next menu or save.
3) UP：Menu selection or increasing the parameter.
4) DOWN：Menu selection or decreasing the parameter.

```
  MENU   UP   DOWN  ENTER
```

5.2 DMX ADDRESS CODE SETTING

1) Press the 【ENTER】 button in 【ADDR】 menu, then enter to the DMX address code setting.
2) Press the【UP/DOWN】button to select【1-512】numerical value.
3) Press the 【ENTER】 button to escape and save.

5.3 STATIC SETTING

1) Press the 【ENTER】 button in 【STAT】 menu, then enter to the static setting.
2) Press the【UP/DOWN】 button to select 【RED1】,【GREEN1】……【WHITE3】and【SHUT】.
3) Press the 【UP/DOWN】button to set up the 【0-255】numerical value.
4) Press the 【ENTER】 button to escape and save.

5.4 COLOR CAST CALIBRATION SETTING

1) Press the 【ENTER】 button in 【CAL】 menu, then enter to the color cast calibration setting.
2) Press the 【UP/DOWN】button to select 【RED】,【GREEN】,【BLUE】,【WHITE】
3) Press the 【UP/DOWN】button to set up the 【0-255】numerical value.
4) On the 【USE】interface, pressing 【ON】button means valid, otherwise 【OFF】button invalid.
5) Press the 【ENTER】button to escape and save.
Illustrations: When pressing the 【ON】button which means valid on the 【USE】interface, the actual output value of RED，GREEN，BLUE，WHITE is output in accordance with the percentage which the color cast calibration value divides 255.

5.5 CHANNEL MODE SETTING

1) Press the 【ENTER】button in 【CHMD】menu, then enter to the channel mode setting.
2) Press the 【UP/DOWN】button to select【18CH】,【10CH】,【7CH】,【5CH】,【2CH】
3) Press the 【ENTER】button to escape and save.

5.6 DIMMING MODE SETTING

Illustrations：When setting 【OFF】in 【DIM】menu, there will be no delay dimming effect. The dimming speed of DIM1-DIM4 is from fast to slow. It will be set 【OFF】automatically in 【DIM】 menu when showing the shutter effect.
1) Press the 【ENTER】button in 【DIM】menu, then enter to the dimming mode setting.
2) Press the 【UP/DOWN】button to select 【OFF】,【DIM1】,【DIM2】,【DIM3】and 【DIM4】
3) Press the 【ENTER】button to escape and save.

5.7 DISPLAY SETTING

1) Press the 【ENTER】button in 【DISY】menu, then enter to the display setting.
2) Press the 【UP/DOWN】button to select 【ON】,【2 MINITES OFF】
3) Press the 【ENTER】button to escape and save.

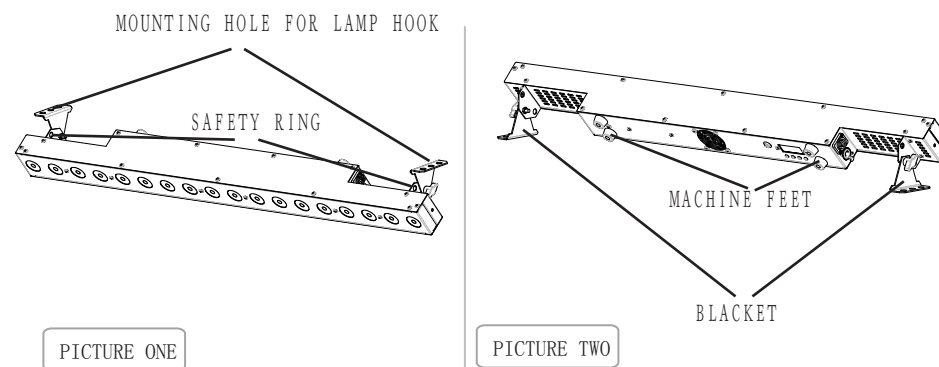## 5.8 SET MAXMUN FAN SPEED

1) Press the 【ENTER】button in 【FAN】menu, then enter to the maximum fan speed setting.
2) Press the 【UP/DOWN】button to select 【HIGH】, 【MIDDLE】, 【LOW】
3) Press the 【ENTER】button to escape and save.

5.9 RUN THE AUTO-RUN, AUTO-PROGRAMMING PROGRAM

1)Press the 【ENTER】button in【AUTO】menu, then enter to the running the auto-run, auto-programming program.

3、 LIGHTING INSTALLATION

MOUNTING HOLE FOR LAMP HOOK

SAFETY RING

MACHINE FEET

BLACKET

PICTURE ONE   PICTURE TWO

- The lighting can be hanged on the high place with using the lamp hooks (as showed in picture 1). Use the safety cord provided to pass through the bottom safe ring and hang it as a second safety fixing.
- The lighting also can place on the ground and make sure balance stand ,as showed in picture 2. Because it is equipped with machine feets, if you don't need to adjust the projection direction, you may not need to install the bracket.
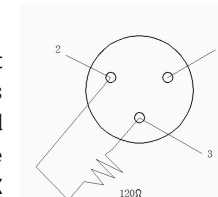
Note:
➢ Ensure support loading ability at least 10 times more than product weight，and make sure lighting be firmly installed.

➢ The lighting must be installed by the qualified personnel. Please install it at the place where no one goes through.
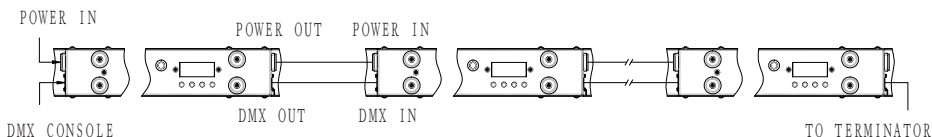
4、 POWER SUPPLY-CONTROL SIGNAL CONNECTIONS

- Make the XLR signal line connect with the lighting, one port connects with the output port of lighting, another one connects with the input port of another lighting.

- Due to the output and input of the lighting keep connecting all the time, so the DMX circuit still can be keep connecting when the power of certain unit occurs turn-off.

- XLR signal line only can be used in series connection pattern(the amount of the lighting can not be more than 32 PCS), not available in parallel connection pattern. Must add a signal amplifier if the length of signal line exceeds 60M between controller and lighting or between two lightings.

- In the controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. The DMX terminator is simply a connector with a resistor about 120Ω（OHM）connected across pins 2 and 3 of the Canon plug（please see the picture in the right）. It can prevent the noise and reflection caused by DMX 512 signal during transmission.

- The transmission speed of DMX 512 signal is very quick. It will affect the signal transmission if any damage of the signal line, the weld is not firm or bad connection etc
- The connector with 3 pins XLR is more universal than the one with 5 pins XLR.
  3 pins XLR：PIN 1：GND，PIN 2：- signal，PIN 3：+ signal.
  5 pins XLR：PIN 1：GND，PIN 2：- signal，PIN 3：+ signal，PIN4/PIN5：UNUSED.
- There can't be more than 12 PCS of lightings for series connection pattern when using 220V AC; it can't exceed 6 PCS lightings for series comection pattern when using 110V AC.

POWER IN POWER OUT POWER IN

DMX CONSOLE DMX OUT DMX IN TO TERMINATOR

5、 OPERATION MENU

MENU	Level 1	Level 2	Level 3	Level 4
ADDR(Address)	001-512			
STAT(Static control)	R1	0-255 *		
	G1	0-255 *		
	B1	0-255 *		
	W1	0-255 *		
	R2	0-255 *		
	G2	0-255 *		
	B2	0-255 *		
	W2	0-255 *		
	R3	0-255 *		
	G3	0-255 *		
	B3	0-255 *		
	W3	0-255 *		
	SHUT	0-255 *		
SET(Set)	CAL(Calibration)	R(Red)	0-255	
		G(Green)	0-255	
		B(Blue)	0-255	
		W(White)	0-255	
		USE	YES/NO	
	CHMD(Channel mode)	18CH		
		10CH		
		7CH		
		5CH		
		2CH		
	DIM(Dimming mode)	OFF		
		DIM1		
		DIM2		
		DIM3		
		DIM4		
	DISY(Display set)	ON(Permanent on)		
		2MIN (2 minutes off)		
	FAN(Fan speed)	HIGH(high)		
		MID(middle)		
		LOW(low)		
CTST(Color temperature set)	CT01	R(Red)	0-255	
		G(Green)	0-255	
		B(Blue)	0-255	
		W(White)	0-255	
	CT10			
AUTO(Auto)	AT01	RUN.. *		
		RUN.. *		
		RUN.. *		
		RUN.. *		
	AT33	RUN.. *		
	ATSP(Auto speed)	0-255(S)		
	CHS1 (Chase 1)	RUN.. *		
	CHS2 (Chase 2)	RUN.. *		
	CHS3 (Chase 3)	RUN.. *		
	SOU1	RUN.. *(Sound change color)		
	SOU2	RUN.. * (Sound Strobe,STAT as color)		
PROG (Program)	CHS1 (Chase 1)	SC01 (Scene 1)	R1	0-255
			G1	0-255
			B1	0-255
			W1	0-255
			R2	0-255
			G2	0-255
			B2	0-255
			W2	0-255
			R3	0-255
			G3	0-255
			B3	0-255
			W3	0-255
			SHUT	0-255
			AUTO	NONE, AT01-AT33
			ATSP	0-255(S)
			TIME	0-255(S)
			WAIT	0-25.5(S)
			USE	YES/NO
		SC25 (Scene 25)		
	CHS3 (Chase 3)			
INFO (Information)	SOFT(Software version)	Vx.x		
	LEDs	xxR		
		xxG		
		xxB		
		xxW		
	POW(Power reduction)	100%/80%/50%		
LOAD(Load)	ST L (Setting load)	YES/NO		
	PR L (Program load)	YES/NO		
REST(Reset)	YES/NO			
SEND(Send)	YES/NO			

Illustrations:

When the menu is set as the information of * position, the projector will be set automatically to be the main engine and then send data to external. Other projectors can receive these data and run synchronously with the main engine. It still be run according to these setting parameter even if power reconnection after power off .

When setting YES in【ST L】menu, The parameter will bereset to be the factory default value as which with underline of above chart.